

(Demo) Annual Narrative



FWSANV-0169

QUARTERLY

REPORT OF ACTIVITIES

AUGUST 1 TO OCTOBER 31, 1939

MALHEUR MIGRATORY WATERFOWL REFUGE

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United States Department of the Interior
Bureau of Biological Survey
Burns, Oregon

UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

February 19, 1940.

Mr. T. B. Murray,
Acting Regional Director,
Bureau of Biological Survey,
404 U. S. Court House,
Portland, Oregon.

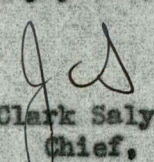
Dear Mr. Murray:

It is still not too late to commend the excellent August-October narrative report from Malheur. This gives an accurate and convincing picture of refuge conditions, development work, and the wildlife problems of the area.

Please pass our appreciation of this report on to Refuge Manager Scharff.

Very truly yours,

JCS:nbw


J. Clark Salyer II,
Chief,
Division of Wildlife Refuges.



UNITED STATES DEPARTMENT OF AGRICULTURE
BUREAU OF BIOLOGICAL SURVEY

February 10, 1940

Mr. A. S. Rehn,
Bureau of Biological Survey,
U. S. Department of Agriculture,
Washington, D. C.

Dear Mr. Rehn:

It is with great interest that I have read your report on the
biological survey of the Colorado River. This report is a valuable
contribution to the knowledge of the river and its
wildlife resources.

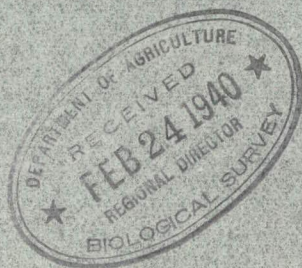
Please find the report of this survey on the
Colorado River.

Very truly yours,

W. P.

W. P. Rehn,
Bureau of Biological Survey,
U. S. Department of Agriculture.

WPR:506



S - Publications
Quarterly Report

Malheur Refuge
Burns, Oregon
November 11, 1939

Acting Regional Director
404 U. S. Courthouse
Portland, Oregon

Dear Mr. Murray:

Attached hereto please find the Malheur Refuge Report of Activities and the Quarterly Grain Report, covering the period August 1 to October 31, 1939.

If these reports are correct and meet with your approval, please initial and forward the required copies to the Washington Office.

Very truly yours,

J. C. Scharff
Refuge Manager

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Encls.

cc: Attached

WEATHER CONDITIONS

The more-or-less unfavorable, hot, dry weather of the May-July period has continued throughout most of the August 1 to October 31 period at the Malheur Refuge.

The following weather recordings from the Sod House weather station present an enlightening picture of the precipitation and temperatures of this three months' period:

Sod House Weather Bureau Station

Weather Data--August, September, October, 1939--Summary

Month	: Total Inches :		
	: Precipitation :		Maximum
	: During Month	: Temperature	: Minimum Temperature
August	.05	95	34
September	.04	91	29
October	1.08	75	18
Total Precipitation	1.17		
Maximum Temperature		95	
Minimum Temperature			18

The total precipitation of 1.17 inches for this period is less than one-half of that of the corresponding period last year and the precipitation for August and September was extremely meager. Temperatures did not reach any outstanding extremes although the 77° variation between the maximum and minimum for this year was 8° larger than that of a year ago.

A brief spell of cold weather during the latter part of October brought two inches of snow but subsequent, pleasant, autumn sunshine has neutralized and relegated it to the ranks of past memories. On November 1 the summit of the Steens Mountains is still brown and bare where ordinarily it carries a heavy mantle of white at this season of the year.

It is yet a bit early to foretell the water possibilities for next year but present indications are rather foreboding. Unless we experience some change in weather trends and are favored with some heavy fall rains and extensive winter snows the water levels for the 1940 season will be reminiscent of that of 1934. We sincerely trust that we shall be able to present a much more favorable weather picture by February 1, 1940.

FIRES

It is our belief that divine providence must have been largely instrumental in protecting the dry, grassy areas of the Malheur Refuge from a serious fire during the past summer. Although the rank vegetation coupled with hot, dry weather offered a very acute fire hazard, the Malheur experienced only five fires during the entire summer.

Four of these were negligible insofar as area and inflicted damage were concerned but one, a lightning fire occurring on September 30, might have assumed major proportions had it not been for prompt and efficient action on the part of CCC and Refuge personnel. One bolt from a severe electric storm which was passing over struck on a rocky hillside near the Lower Diamond Marsh in the northwest corner of unit 7 and the fire quickly spread into the heavy, dry tule growth which is characteristic of this area. The fire was immediately sighted from Buena Vista and a crew of men from that location began suppression activities at once.

While awaiting the arrival of the fire plow and road graders which were dispatched from various points on the Refuge to the fire, the men found that the best emergency control measure was to tramp down a wide swath in the tules and follow this up by beating out the flames with wet sacks as they were temporarily halted by this break in the growth. By this method the spread of the fire was stopped and an immediate follow-up with the fire plow and two road graders in constructing a fire line held the fire to an area of 37 acres.

Because of the peaty nature of the soil, the fire was difficult to "mop up" but by the extensive use of water and the help of some favorable weather at the time it was possible to declare the fire officially out on October 5.

This fire proved a good test ground for the fire plow to determine its adaptability in a tule growth of this nature. It was found that when the tules became too dense and rank they would tend to ball up on the plow and it had to be stopped every few yards and cleaned. However, the ingenuity of the CCC blacksmith has perfected an improved type of cutter for the plow which enables it to thwart any tendency of this nature.

THE WATERFOWL SITUATION

General indications from the fall migration are that geese, both Canada and lesser snow, are definitely increasing and that all species of ducks, if not increasing, are holding their own. The snow geese migration has been very extensive this fall with many thousands in evidence on Malheur Lake throughout the whole of October. This would indicate that either they are rapidly increasing or they are favoring the Malheur over previous years as a resting and feeding place. The weather condition has been unusually good for migrants, with warm, pleasant days and very little stormy weather.

The first migrants were noted on August 1 when 16 snow geese were seen. The duck migration began about the middle of August at which time the first concentrations of pintails and green-winged teal were seen.

A census was taken of the Malheur Lake unit on October 17 and the following estimated numbers of waterfowl were seen: 40,000 snow geese, 10,000 to 15,000 Canada geese, 1,000 to 1,500 white-fronted geese, 50,000 to 75,000 ducks (mallards predominating), 150 avocets, 1,500 to 2,000 dowitchers, 3,000 unidentified sandpipers (probably western), 4,000 coots, 150 sandhill cranes and an occasional egret and pelican. All seemed to be very contented with very little shifting or moving about, which undoubtedly indicates that food, water and weather conditions were entirely to their liking.

Boca Lake is proving to be an attractive resting site for the migrants and, with the growth of the native and introduced species of waterfowl food, it should in time be an excellent feeding site as well. It has been noted that the Canada geese have found Boca Lake to be an excellent focal point for their forays to the fields at Grain Camp and other Refuge localities.

It is believed that practically all the northern flight has now arrived and many of the summer nesters have moved south.

A few interesting observations have been made which are worthy of mention: One hundred curlews were counted on the north shore of Malheur Lake on August 1 in one bunch. This is the largest single concentration of curlews that have ever been seen on the Malheur. On August 17, 107 egrets were seen on the Lake, which might indicate that this beautiful bird is continuing to increase. Three or four hundred sandhill cranes are seen frequently in the grain field at the Grain Camp.



Thousands of snow geese on the shores
of Lake Malheur.



Here the camera is able to approach much closer but the
wary birds will not be caught napping.

TRUMPETER SWAN

On October 16 the Malheur was favored by the receipt of three trumpeter swan cygnets from the Red Rock Lakes Refuge in Montana. These birds were placed in the holding pen at the Refuge headquarters where they seem quite contented in their new environment. It is our plan to retain them in captivity until after the spring migration of 1940 at which time they will be liberated to make their homes on Lake Malheur.

It is the plan to receive a few more of these beautiful and valuable birds next season in order to form the nucleus of what we hope will be a splendid representation of the trumpeters on Malheur Refuge for all time to come.

BIRD BANDING

A total of 3,376 birds have been banded between the period July 1 and October 31 at Malheur Refuge. These have been principally mallards, pintails, baldpates and green-winged teal.

The mild weather has not been conducive to good banding since it causes very little movement in the birds. Many ducks are trapped each day but a very large percentage are repeats; once they are banded they fly a short distance and return when they consider the moment opportune for another feed. In spite of this the banding has averaged approximately 100 a day.

A large number of repeats from 1936 have been captured. In most cases the bands are still legible and in good condition.

For some unknown reason the usual number of divers have not been trapped; in fact a single canvasback has not been taken. They are in evidence elsewhere in about their usual numbers but are not frequenting the banding trap areas this season.

All birds banded at the Malheur Lake trap have been in good condition with the exception of a recent flight of baldpates in which most of the birds were in just fair condition. Many of the birds banded at Buena Vista have been in just fair condition and some were very poor.



The three trumpeter swan cygnets lined up in marching order as they swim merrily across their pen.



Although they are yet "babies" they dwarf the full-grown Canada honkers.



Mallards, pintails, baldpates and green-winged teal lured into the banding trap by an insatiable appetite.



Many of the beautiful "green heads" come back time after time as though it were a game.

DUCK SICKNESS

The effects of botulism this year, although not as keenly felt from the standpoint of bird losses as last year; nevertheless it appreciably lowered our total waterfowl production for the past season. Malheur Lake continued its role as the worst offender, the northeastern part producing the greater portion of all sick and dead birds. Of a total of 4,154 birds, 3,651 ducks and geese, picked up dead by rescue crews all, with the exception of 328 from the Buena Vista marsh and 11 from Boca Lake, were taken from Lake Malheur. In the same way, out of a total of 891 birds, 845 ducks and geese, hospitalized all but 37 ducks were taken from the lake unit. Sixty-eight birds, 62 ducks, picked up sick died in transit to the duck hospital.

Although this outbreak was first noticed in ring-billed gulls on Ausmus Point, ducks were by far the hardest hit with pintails, mallards, green-winged teals, shovelers, baldpates and cinnamon teals in respective order making up almost 3,200 of the birds picked up dead and 829 of all sick birds. Only 7 dead and 4 sick geese were found. Although dead coots buried numbered 401, exceedingly few were found sick.

For no apparent reason the recovery of ducks in the hospital dropped from 72% as of last year to 52% for this year. Crowding in the convalescing pen toward the end of the outbreak was responsible for a 5% drop in total duck recovery, however.

Some experimental work on treatment was undertaken this year and sufficient evidence was secured to indicate the advisability of a warm water enema administered upon entrance of each bird into the hospital.

Forty species of birds were victimized this year by botulism. However, eight of these had questionable symptoms and might have been suffering from some other ailment.

OTHER WILDLIFE

It is gratifying to note the increase in the resident and transient mule deer population on the Refuge. Especially was this evident during the hunting season from September 20 to October 25, just as though some sixth sense had warned them that their lives were in danger and the one safe place for them at that time was on the inner side of the Refuge fence. On September 28 while passing along the edge of the Refuge on the state highway, 40 deer were counted in the Jones Field. It would have been interesting to have heard the comments of some of the frustrated deer hunters when on their return from an unsuccessful hunting trip they see their elusive quarry with a grand set of horns standing across the fence possibly a hundred yards away and literally "thumbing their noses".

The deer at the P Ranch are almost as much of a nuisance as the proverbial neighbor's chickens. If a basket of fruit or vegetables is absent-mindedly left outside some evening, you can be sure it will have vanished by the next morning.

The ring-necked pheasants are increasing appreciably since many more of these beautiful birds are now seen than were in evidence a year ago.

Five new feeding stations have been constructed by Refuge personnel and are proving very attractive to this pheasant population. Each station, enclosed by a stock-proof fence, consists of about a ton and a half of bundled barley placed on a pole cribbing some eighteen inches off the ground. This arrangement, we believe, will prove very satisfactory since it also serves as an excellent, warm winter shelter for these upland birds. The structure has an opening at both ends which precludes the possibility of the birds being trapped by some predator and destroyed.

All stations are located at a point of junction of three most important cover types for upland birds: willow roost and escape cover, brush or grass escape and nesting cover and, of course, water. All stations are well concealed so that foreign interference is reduced to its lowest possible minimum.

On October 7 a visit to these five stations disclosed 97 pheasants. As many as 48 of these birds have been seen at one station alone.

PREDATOR CONTROL

The hunter assigned by the Division of Predator and Rodent Control to the Malheur Refuge made an enviable record in accounting for 297 predators during the August-October period. Of this number, 295 were coyotes and 2 were bobcats. The take by months was as follows:

<u>Month</u>	<u>Coyotes</u>	<u>Bobcats</u>
August	127	
September	117	2
October	<u>51</u>	<u>—</u>
TOTALS	295	2

This take exceeded that of any other hunter in the states of Oregon and Washington both in August and September. Although we have not received the returns for October, the record of 51 predators during that month is away above normal since, with the advent of cooler fall weather, the animals begin to scatter and move out.

A number of the furs, even as early as September, were noted to be of excellent quality and at the present writing nearly all of them are marketable. The predator fur take will undoubtedly provide a very creditable source of income this season.

PHYSICAL DEVELOPMENTS

Although the type of weather we have been having is not conducive to a good water supply, it has been ideal from the standpoint of development activities and the CCC camps have accomplished much during the August-October period. Following is a tabulation of some of their major accomplishments during this period:

<u>Class.</u>	<u>Type of Development</u>	<u>Quantity</u>
104	Bridges, Vehicle	1 Ea.
131	Fences	2065 rds.
132	Guard Rails	12 rds.
133	Levees, Dikes and Jetties	2735 cu.yds.
156	Tool Boxes	4 each
316	Crushing Rock	828 tons
401	Clearing and Cleaning Channels	36,908 sq.yds.
404	Excavation, Earth	29,088 cu.yds.
407	Riprap or Paving, Rock	86 sq.yds.
411	Water Control Structures	3 each
601	Fighting Forest Fires	2452 man-days
606	Fire Presuppression	643 man-days
703	General Cleanup	8.3 acres
713	Razing Undesirable Structures	824 man-days
714	Seed Collection	130 lbs.
902	Food and Cover Planting	77.5 acres
906	Other Wildlife Activities	615 man-days
1012	Prep. and Transportation Materials	1364 man-days
1023	Surveys	197 man-days
1026	Equipment Repair and Construction	1177 man-days
1028	Warehousing	806 man-days

In addition to the accomplishments listed above, a number of man-days have been expended on such developments as water control structures, cattle guards, etc. which cannot yet be shown as completed units. Also considerable necessary maintenance work has been done on fences, telephone lines and truck trails.

Work has been proceeding at a rapid pace on the reconstruction on Busse Dam and we should be able to write finis on this project, with the exception of the gate installations, at an early date.

WILD CELERY PLANTINGS

On October 10, 100 pounds of wild celery seed pods were received from the Montezuma Migratory Bird Refuge at Seneca Falls, New York, and during the period October 11 to 20 inclusive these were planted at five strategic sites on the Refuge. If the planting is successful, this valuable waterfowl food will not only tend to attract the most birds but will also afford the best opportunity for more generalized distribution throughout other important duck feeding areas.

All told the entire planting comprised about one and a half acres, distributed over five sites including the mouth of the Blitzen River, the Buena Vista marsh inlet, Krumbo Spring, the P Ranch marsh inlet and the Blitzen Canyon spring.

The fruit was sown at the rate of a one-half inch section of pod, containing approximately two dozen seeds, each portion being wrapped in a clay ball about the size of a walnut. No more than a handful of pods for every ten men making mud balls was taken from a can at a time and these pods were placed on a wet burlap sack until used with one-half of the sack folded over the pods. This operation took place at the planting site and, in water from one to five feet in depth, the balls were distributed immediately at the rate of one ball per square foot by the use of a chalk line.

All plantings were made in soils ranging from mud to a coarse or sandy silt and in water either having a tendency toward sluggish movement or still waters continually freshened by springs.

GRAIN HARVEST

The 3,427 bushels of grain harvested on the Malheur was approximately the quantity forecast as the probable crop but the quality, of the wheat especially, was not as satisfactory as was desired. An early cold spell frosted much of the wheat and some of the barley before it was fully set. This resulted in numerous shriveled kernels. The oats are of good quality.

Following are the amounts of the various crops which were harvested at Grain Camp this season: wheat, 1,456 bushels; oats, 965 bushels; barley, 810 bushels; and beardless barley, 196 bushels.

The stubble aftermath at Grain Camp and the scattered patches of grain left standing have been found by the waterfowl and the geese, ducks and sandhill cranes have congregated there by the thousands to feast. Even though it has been two months since the grain was harvested, it is estimated that there are still from ten to twelve thousand ducks in this locality.

During the period, 20 bushels of wheat were transferred to the Deer Flat Refuge in Idaho and 10 bushels of barley went to the Cold Springs Refuge near Pendleton, Oregon. As indicated on our quarterly grain report, 108 bushels of wheat and 45 bushels of barley have been fed, either to bait the banding traps or to feed the ducks, geese and swan in the display pen.

MALHEUR AND THE PUBLIC

We have been favored with many interested visitors during the past three months and, since the opening of the migratory bird hunting season, we have many callers, especially on week ends, desiring information relative to hunting regulations and open and restricted shooting areas.

On October 19, Mr. Paul Fair, in charge of public relations of region 5 of the Forest Service, and a Mr. Hanson, President of the Fish and Game Bureau of the Southern California Auto Club, visited the Refuge primarily for the purpose of securing pictures. The time was ideal and both Mr. Fair and Mr. Hanson felt that they had secured some very excellent pictures, both moving and still. One exceptional coyote scene of a coyote catching a mouse was secured, 110 feet of film was taken of bird banding operations and many stills and several hundred feet of film were taken of goose concentrations, ducks, sandhill cranes and other birds using the Refuge.

The Blitzen River during the months of August, September and October provided some excellent angling for the many sportsmen who have learned of its fighting rainbows. The average fisherman, after ardently angling throughout the pleasant spring and hot summer months, begins to lose interest with the advent of fall but, as the Blitzen this year has conclusively proven, most of the larger and better catches are made during the months of September and October.

Because of an open season in central Oregon this year on both sexes of mule deer, the usual number of hunters did not seek their quarry in the Steens Mountain section of the state. However, a large percentage of the nimrods had their usual success in the Steens and many splendid bucks were brought out.

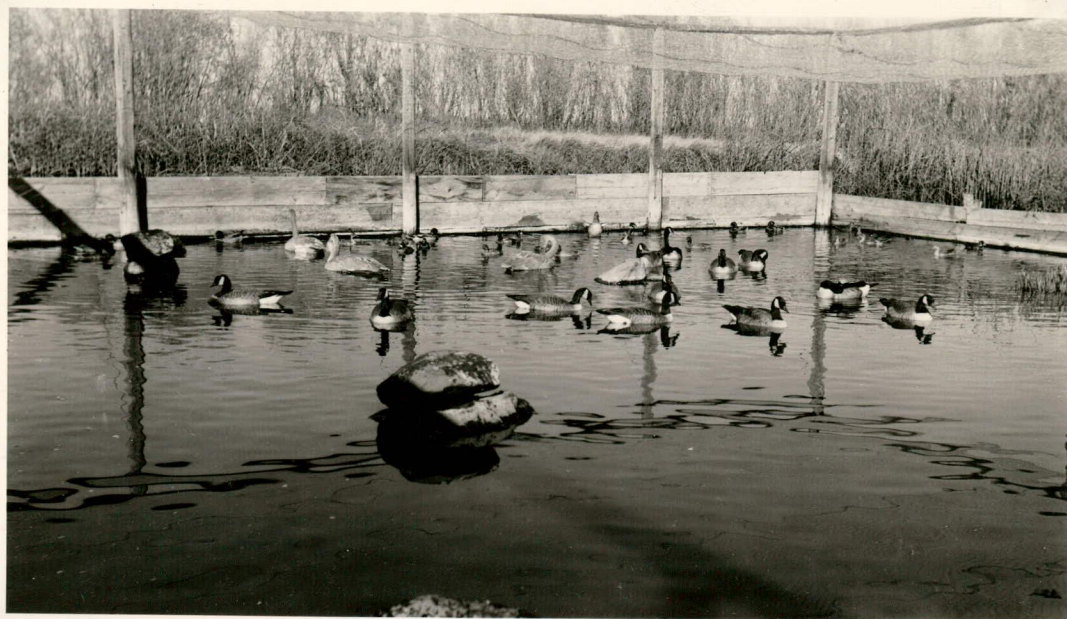
Since there are no public shooting grounds on the Malheur, we do not have the problem prevalent on many of the refuges of checking hunters in and off the area. However, an extensive patrol is being maintained on all portions of the Refuge on Saturdays, Sundays and holidays to see that there are no trespassers and that all hunters encountered are complying with regulations in every way. On other days of the week, although in this locality very few hunters are in the field, a close lookout is maintained by each personnel member as he carries on his routine work.

EXHIBITS AND DISPLAYS

At the annual Harney County Fair held in Burns, Oregon, on September 15, 16 and 17, the Malheur was represented by a wildlife exhibit comprising a representative sample of the waterfowl prevalent on this Refuge and two young mule deer. The exhibit was attractively arranged in one of the large display buildings and evoked much favorable comment from the spectators.

The Malheur CCC camps were represented at the fair by a float which was entitled "The CCC Mill" and depicted the aims and accomplishments of the CCC organization, especially in its relation to wildlife restoration as practiced on Malheur Refuge. This was an exceptional, well-planned float and received first award as the most representative float in the parade.

In the Sod House Spring adjacent to the Refuge headquarters we have a display pen wherein we now have a good representative sample of the duck species, a number of Canada geese and the trumpeter swan. Most of the ducks are being held pending authority for their transfer to the public park at the city of Long Beach, California. The pen has aroused so much interest in all visitors, because they can view the birds at close quarters, that it seems a permanent exhibition of this nature would be a very attractive and beneficial asset at this location.



A general view of the display pen with its ducks, geese and swan.



Sod House Spring--the colorful pond which enhances the beauty of the Malheur Refuge headquarters.

GRAZING

As of October 31 there were 4,641 head of cattle and horses on the Blitzen Valley unit of the Malheur Refuge. This number, of course, fluctuates as the stockmen remove their stock from the Refuge for sale or to place them on feed lots and bring them on the Refuge as outlying range lands become depleted; but it is conservatively estimated that the numbers will average 5,000 throughout the grazing season from September 1 to March 31.

The following excerpt from the letters-to-the-editor section of the October issue of "The Oregon Cattleman", official publication of the Oregon Cattle and Horse Raisers' Association, written by a prominent stockman of Burns, exemplifies the part played by the Refuge in the economic welfare of the local stockmen, "The Malheur Refuge is just what the word implies and a large number of stock have been taken from the ranges to the lake, which should prove beneficial both to cattle and the range".

SHARE-CROPPING

Most of the grain sowed this season under share-cropping agreement was planted too late to insure a satisfactory crop. However, the cooperative permit on the Witzel area for grain raising netted the Refuge 207 bushels of barley and 580 bushels of oats. There was a good stand of grain in this area this season but depredations by blackbirds resulted in a large shrinkage in harvested grain. Several yards in from the outside edges the grain was completely stripped of every kernel.

The other share-cropping permits netted enough grain to the cooperators to return their seed, but no attempt was made to harvest the greater portion of the area. However, next season the cooperators plan to sow their crops sufficiently early to insure a good crop and we are looking forward to a successful season in our share-cropping program.